IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Applicant :	Etienne Degand et al.		
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Docket No. :	4004-063-30 NATL		
For :	Heatable Glazing Panel		

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Commissioner for Patents
P.O. Box 1450
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AMENDED APPEAL BRIEF UNDER 37 C.F.R. § 41.37

The Notice Of Appeal was timely filed on April 23, 2008. An Appeal Brief was timely filed on July 21, 2008. This Amended Appeal Brief is timely filed in response to the Notification of Non-Compliant Appeal Brief, dated October 10, 2008. Appellant respectfully submits that this Amended Appeal Brief is in condition for consideration on the merits.

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I. REAL PARTY IN INTEREST

The real party in interest is AGC Flat Glass Europe S.A., the assignee of record.

II. RELATED APPEALS AND INTERFERENCES

There are no known related appeals or interferences.

III. STATUS OF CLAIMS

Claims 1-6 and 8-30 are pending in the application. Claim 7 has been canceled.

Claims 1-6 and 8-30 stand finally rejected under 35 U.S.C. § 103 as follows:

- Claims 1-6, 8-9, 12, 14, 18-19, 21-24 and 30 stand rejected as being unpatentable over U.K. Patent Application Publication No. GB2186769A ("Hasegawa") in view of U.S. Patent No. 4,251,316 ("Smallbone").
- Claims 10-11 and 13 stand rejected as being unpatentable over Hasegawa in view of Smallbone and further in view of International Application Publication No. WO 00/72635 ("Degand").
- Claims 15 and 16 stand rejected as being unpatentable over Hasegawa in view of Smallbone and further in view of U.S. Patent No. 5,466,911 ("Spagnoli").
- Claim 17 stands rejected as being unpatentable over Hasegawa in view of Smallbone and further in view of Spagnoli, U.S. Patent No. 3,475,588 ("McMaster") and U.S. Patent No. 4,119,425 ("Marriott").
- Claim 20 stands rejected as being unpatentable over Hasegawa in view of Smallbone and further in view of Degand.
- Claims 25-29 stand rejected as being unpatentable over Hasegawa.

Claims 1-6 and 8-30 are on appeal.[1]

IV. STATUS OF AMENDMENTS

No amendments were filed subsequent to the Final Office Action, dated October 26, 2007. All previous amendments have been entered.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The claims of this application are directed to an electrically heatable glazing panel. The objective is to electrically heat a glass panel of a vehicle, train or aircraft, to melt and remove snow, ice, etc.

The subject matter of independent claim 1, the sole independent claim in this application, is briefly reviewed below in the context of the specification and drawings for explanatory purposes only and not as a limitation on the scope of the claims.

A. Independent Claim 1

Claim 1 is directed to an electrically heatable glazing panel **(17)** which includes a substrate[2] and at least two electrically heatable zones **(31, 32, 33, 34, 35)**. (Specification, page 7, lines 10-15, and Figure 1). Each electrically heatable zone **(31, 32, 33, 34, 35)** comprises: (i) a

[1] There is an outstanding objection to the drawings, which was raised for the first time in the Final Office Action dated October 26, 2007, from which this appeal is taken. Such an objection is generally not appropriate for consideration on appeal. *Ex parte C*, 27 U.S.P.Q.2D 1492, 1494 n.3 (Bd. Pat. App. & Int'f 1992) ("35 U.S.C. § 134, which provides the right of appeal, refers only to the appeal of rejections of claims and, accordingly, restricts the jurisdiction of the Board of Patent Appeals and Interferences to considering the propriety of "rejections.") The propriety of "objections" and other procedural requirements is solely within the jurisdiction of the Commissioner of Patents." *In re Hengehold*, 169 U.S.P.Q. 473 (CCPA 1971). However, Appellant reserves the right to address this objection, if necessary, upon the conclusion of this appeal. Appellant is not aware of any authority that requires such an objection, raised for the first time in a "First-Action-Final Rejection" to be resolved before pursuing an appeal.

[2] The substrate can be a glass sheet **(1)**, as noted in dependent claim 12.

substantially transparent, electrically conductive coating layer **(2)**, (ii) spaced bus bars **(21, 22, 23, 24, 25, 26)** adapted to supply electrical voltage across the substantially transparent, electrically conductive coating layer **(2)**, and **(iii)** a conductive path **(41, 42, 43, 44, 45)** defined between the bus bars **(21, 22, 23, 24, 25, 26)**. (*Id.* at lines 10 – 22 and Figure 1). The electrically heatable zones **(31, 32, 33, 34, 35)** are delimited by at least one zone boundary **(6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16)** which is substantially insulating. (*Id.* at lines 10-15 and Figure 1). For at least one of the electrically heatable zones **(31, 32, 33, 34, 35)**, the conductive path **(41, 42, 43, 44, 45)** changes direction at least once along its length within the electrically conductive coating layer **(17)** so as to double back upon itself. (*Id.* at lines 22-25 and Figure 1). Further, at least one bus bar **(21, 22, 23, 24, 25, 26)** is shared between different zones **(31, 32, 33, 34, 35)**. (*Id.* at lines 26-28; page 8, lines 4-10 and lines 15-23, and Figures 1-3).

B. Dependent Claims

1. Claim 2

Claim 2 recites that at least one portion of the conductive path **(41, 42, 43, 44, 45)** extends substantially from a lower edge of the glazing panel **(17)** to an upper edge of the glazing panel **(17)**. (Specification, page 2, lines 5-9; page 8, lines 4-8; and Figures 1, 2 and 4)

2. Claim 3

Claim 3 recites that, for at least two electrically heatable zones **(31, 32, 33, 34, 35)**, the conductive path **(41, 42, 43, 44, 45)** changes direction at least once along its length within the electrically conductive coating layer **(2)** so as to double back upon itself. (Specification, page 2, line 19- page 3, line 5; page 3, 9-12; page 7, lines 22-25; and page 8, lines 4-10, 19-22; and Figures 1, 2 and 4.

3. Claim 4

Claim 4 recites that the length of the conductive path **(41, 42, 43, 44, 45)** is substantially the same in each zone **(31, 32, 33, 34, 35)**. (Specification, page 7, lines 29-31; Figure 1)

4. Claim 5

Claim 5 recites that all of the bus bars **(21, 22, 23, 24, 25, 26)** are located along the length of a same edge of the glazing panel **(17)**. (Specification, page 4, lines 8-12; Figure 1)

5. Claim 6

Claim 6 recites that the bus bars **(21, 22, 23, 24, 25, 26)** are provided along the length of the lower edge of the glazing panel **(17)**. (Specification, page 4, lines 8-12; page 8, lines 24-26; and Figure 1)

6. Claim 8

Claim 8 recites that the one or more zone boundaries **(6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16)** are provided by non-coated portions of the glazing panel **(17)**. (Specification, page 4, lines 20-29; and Figure 1)

7. Claim 9

Claim 9 recites that the one or more zone boundaries **(6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16)** have a width of less than 150 μm. (Specification, page 4, line 31- page 5, line 1)

8. Claim 10

Claim 10 recites that the coating layer **(2)** is a solar control coating layer. (Specification, page 5, lines 6-12)

9. Claim 11

Claim 11 recites that the coating layer **(2)** has a resistance comprised between 2 and 25 to ohms/square. (Specification, page 5, lines 23-25; page 7, lines 16-17)

10. Claim 12

Claim 12 recites that the substrate is a glass sheet **(1)**. (Specification, page 5, lines 26-29; page 7, lines 10-15; and Figure 1)

11. Claim 13

Claim 13 recites that the glazing panel **(17)** is thermally toughened. (Specification, page 5, lines 29-31)

12. Claim 14

Claim 14 recites that the glazing panel **(17)** is laminated. (Specification, claim 14)

13. Claim 15

Claim 15 recites that the glazing panel **(17)** is an automotive side window. (Specification, page 6, lines 13-14; page 7, lines 10-15)

14. Claim 16

Claim 16 recites that the glazing panel **(17)** has at least one acute angle **(65)**. (Specification, page 6, lines 6-11; page 8, lines 11-14; and Figure 3)

15. Claim 17

Claim 17 recites that the glazing panel **(17)** is of substantially triangular shape. (Specification, claim 17 and Figure 1)

16. Claim 18

Claim 18 recites that the electrically conductive coated layer **(2)** is deposited directly on a surface of the substrate. (Specification, page 4, lines 23-29; page 5, lines 13-16; and page 7, lines 16-17)

17. Claim 19

Claim 19 recites that the electrically conductive coated layer **(2)** is carried by a thin plastic film assembled as part of the glazing panel **(17)**. (Specification, page 6, lines 3-5)

18. Claim 20

Claim 20 recites that the variation in temperature across all electrically heatable zones **(31, 32, 33, 34, 35)** is less than 15°C when a voltage is applied across the coating layer **(2)** of the glazing panel **(17)** via the spaced bus bars **(21, 22, 23, 24, 25, 26)** and after the glazing panel **(17)** has reached equilibrium conditions with its surroundings, the surroundings being at room temperature. (Specification, page 3, lines 13-19)

19. Claim 21

Claim 21 recites spaced first, second and third electrical bus bars **(21, 22, 23)** arranged in order at and along an edge of the glazing panel **(17)**. Claim 21 further recites a first electrically heatable pathway **(41)** defined between the first and the second bus bars **(21, 22)**, and a second electrically heatable pathway **(42)** defined between the second and the third bus bars **(22, 23)**. (Specification, page 8, lines 24-30; and Figure 1)

20. Claim 22

Claim 22 recites that the electrically heatable glazing panel **(17)** is adapted to provide for electrical heating of the first electrically heatable pathway **(41)** by means of a difference in electrical potential applied between the second and first bus bars **(21, 22)** and is adapted to provide for electrical heating of the second electrically heatable pathway **(42)** by means of a difference in electrical potential applied between the second and third bus bars **(22, 23)**. (Specification, page 9, lines 3-9; and Figure 1)

21. Claim 23

Claim 21 recites that the first and third bus bars **(21, 23)** are adapted to be maintained at substantially the same electrical potential for heating of the first and second electrically heatable pathways **(41, 42)**. (Specification, page 9, lines 3-9; and Figure 1)

22. Claim 24

Claim 24 recites that, for heating of the first and second electrically heatable pathways **(41, 42)**, the second bus bar **(22)** is adapted to be maintained at a negative electrical potential and the first and the third bus bars **(21, 23)** are adapted to be maintained at a positive electrical potential. (Specification, page 9, lines 3-9; and Figure 1)

23. Claim 25

Claim 25 recites that the glazing panel **(17)** further comprises a fourth electrical bus bar **(24)** spaced from and arranged in order with the first, second and third electrical bus bars **(21, 22, 23)** at and along an edge of the glazing panel **(17)**, and a third electrically heatable pathway **(43)** defined between the third and the fourth bus bars **(23, 24)**. (Specification, page 7, lines 18-25; page 8, line 24 – page 9, line 9; and Figure 1)

24. Claim 26

Claim 26 further presents a fifth electrical bus bar **(25)** spaced from and arranged in order with the first, second, third and fourth electrical bus bars **(21, 22, 23, 24)** at and along an edge of the glazing panel **(17)** a fourth electrically heatable pathway **(44)** defined between the fourth and the fifth bus bars **(24, 25)**. (Specification, page 7, lines 18-25; page 8, line 24 – page 9, line 9; and Figure 1)

25. Claim 27

Claim 27 recites that the electrically heatable pathways **(41, 42, 43, 44, 45)** are provided by portions of an electrically heatable coating layer **(2)** provided as part of the glazing panel **(17)**. (Specification, page 8, line 30 – page 9, line 2)

26. Claim 28

Claim 28 recites that the electrically heatable pathways **(41, 42, 43, 44, 45)** are provided by electrically heatable wires. (Specification, page 8, line 24 – page 9, line 2)

27. Claim 29

Claim 29 recites that the bus bars **(21, 22, 23, 24, 25, 26)** are substantially parallel and/or substantially co-linear and/or substantially co-axial. (Specification, page 8, lines 24-26; and Figure 1)

28. Claim 30

Claim 30 recites that at least two of said bus bars **(21, 22, 23, 24, 25, 26)** are shared between different zones **(31, 32, 33, 34, 35)**. (Specification, page 3, lines 29-30; and Figure 1)

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The following grounds of rejection are requested to be reviewed on appeal:

1. The rejection of claims 1-6, 8-9, 12, 14, 18-19, 21-24 and 30 under 35 U.S.C. § 103(a) as being unpatentable over U.K. Patent Application Publication No. GB2186769A ("Hasegawa") in view of U.S. Patent No. 4,251,316 ("Smallbone").

2. The rejection of claims 10-11 and 13 under 35 U.S.C. § 103(a) as being unpatentable over U.K. Patent Application Publication No. GB2186769A ("Hasegawa") in view

of U.S. Patent No. 4,251,316 ("Smallbone") and further in view of International Application Publication No. WO 00/72635 ("Degand").

3. The rejection of claims 15 and 16 under 35 U.S.C. § 103(a) as being unpatentable over U.K. Patent Application Publication No. GB2186769A ("Hasegawa") in view of U.S. Patent No. 4,251,316 ("Smallbone") and further in view of U.S. Patent No. 5,466,911 ("Spagnoli").

4. The rejection of claim 17 under 35 U.S.C. § 103(a) as being unpatentable over U.K. Patent Application Publication No. GB2186769A ("Hasegawa") in view of U.S. Patent No. 4,251,316 ("Smallbone") and further in view of U.S. Patent No. 5,466,911 ("Spagnoli"), U.S. Patent No. 3,475,588 ("McMaster") and U.S. Patent No. 4,119,425 ("Marriot").

5. The rejection of claim 20 under 35 U.S.C. § 103(a) as being unpatentable over U.K. Patent Application Publication No. GB2186769A ("Hasegawa") in view of U.S. Patent No. 4,251,316 ("Smallbone") and further in view of and further in view of International Application Publication No. WO 00/72635 ("Degand").

6. The rejection of claims 25-29 under 35 U.S.C. § 103(a) as being unpatentable over U.K. Patent Application Publication No. GB2186769A ("Hasegawa").

VII. ARGUMENT

A. Introductory Statement

Claim 1 is the sole independent claim and Claim 1 has been rejected only on the combination of the Hasegawa and Smallbone documents. All other dependent claims except claims 25-29 have been rejected on a combination of at least two prior art documents, namely,

Hasegawa and Smallbone, but, inconsistently, dependent claims 25-29 have been rejected solely on the Hasegawa document.

Appellants will argue the rejections as follows:

1. While claims 1-6 and 8-24 are subject to various rejections, they will be argued separately by rejection, but all arguments will be based solely on the patentability of independent Claim 1. Should Claim 1 be deemed not patentable over the combination of the Hasegawa and Smallbone documents, the only documents applied to the rejection of Claim 1, and solely for the reasons stated in the Final Rejection, then Claim 1 and all claims depending from Claim 1 are not patentable.

2. Claims 25-29 will be argued as a group based solely on the legal argument that it is improper to reject "dependent" claims [25-29] on prior art which is acknowledged not to disclose all the features of the claims [1, 21] from which those rejected claims [25-29] depend.

3. Claim 30 will be argued separately with additional arguments presented in support of its patentability.

B. The rejection of claims 1-6, 8-9, 12, 14, 18-19, 21-24 and 30 under 35 U.S.C. § 103(a) as being unpatentable over U.K. Patent Application Publication No. GB2186769A ("Hasegawa") in view of U.S. Patent No. 4,251,316 ("Smallbone") is improper and should be reversed.

Claim 1 and claims 2-6, 8-9, 12, 14, 18-19 and 21-24 will be argued together. Claim 30 will be argued separately independent of the patentability of Claim 1.

1. Claims 1-6, 8-9, 12, 14, 18-19 and 21-24 are patentable.

Claim 1, the sole independent claim, with subheadings (A) through (I) added by counsel is reproduced below for comparison to the prior art.

"1. An electrically heatable glazing panel (A) comprising a substrate (B) and at least two electrically heatable zones, (C, D) each electrically heatable zone comprising:

i) a substantially transparent, electrically conductive coating layer, (E)

ii) spaced bus bars (F, G) adapted to supply electrical voltage across the substantially transparent, electrically conductive coating layer, and

iii) a conductive path (H) defined between the bus bars (F, G),

at least two electrically heatable zones (C, D) being delimited by at least one zone boundary (I) which is substantially insulating;

in which, for at least one of the electrically heatable zones (C, D) the conductive path (H) changes direction at least once along its length within the electrically conductive coating layer so as to double back upon itself (I) , and in which at least one bus bar (F, G) is shared between different zones."

It is important to understand both what the Hasegawa document teaches and what it does not teach. The device of the Hasegawa document is intended to melt ice or snow from automobile glass by electrically heating the glass through the use of bus bars, a conductive layer on the glass, and more than one heatable zone (in various embodiments).

The Hasegawa document illustrates a conventional example and 17 embodiments (Hasegawa, page 1, lines 66-68) of an electrically heatable glazing panel.

- In Figure 1, the Hasegawa document discloses two bus bars formed on opposite edges of the glass.
- In Figures 2 through 10, the Hasegawa document discloses two bus bars formed on opposite edges of the glass, with slits 34 to create multiple zones for heating. In the

embodiments of Figures 2-9, each zone is heated concurrently and in Figure 10 the zones are heated consecutively.

- Figures 11A and 11B of the Hasegawa document represent a single embodiment. In Figure 11A, bus bars 33a, 33b and 33c are energized concurrently, with bus bar 33c being shared between two zones, [left side and right side] but with bus bar 33d de-energized. (See, Hasegawa, page 2, lines 6-28). In this embodiment, the current density near the top of the slits 34 is greater and thawing or defrosting [of the ice or snow] is immediately performed at the distal end of the slits. (*Id.* at page 2, lines 29-34). When this thawing is completed, the electrical polarity at bus bar 33c is inverted [to positive polarity] and concurrently a negative polarity is applied to the previously de-energized bus bar 33d. (*Id.* at page 2, lines 35-40). This is represented by Figure 11B and thawing, defrosting, etc., is then performed across the entire surface of the glass. (*Id.* at page 2, lines 41-45). Thus, Figures 11A and 11B illustrate two steps of a single embodiment.
- Figures 12A and 12B of the Hasegawa document also represent a single embodiment. In the embodiment of Figures 12A and 12B, the bus bar is not shared, rather two sets of bus bars are provided. However, the concentration of electrical current at the distal end of the slits 34 to create "spot" defrosting or de-icing is again utilized followed by a second step (Figure 12B) of applying current across the entire glass surface. (See, generally, Hasegawa at page 2, lines 45-69).

With respect to the rejection of record, in the Hasegawa document, element 34 (an aperture in various Figures including Figure 2, and a slit in various Figures including Figure

11A) is deemed by the Examiner as defining an insulating zone boundary delimiting the zones. (See, Final Rejection, page 3, last paragraph, continuing to page 4, first paragraph).

A portion of the last clause of Claim 1 indicates that "at least one bus bar (F, G) is shared between different zones". The Final Rejection attributes this feature to element 33d in Figure 11B. (See, Final Rejection, page 4, lines 6-7). However, the Final Rejection also indicates that "at least two of the bus bars are shared between different zones as shown in the Figure 11A & B." (Final Rejcction, page 4, lines 11-12). This is incorrect. In Figure 11A, only bus bar 33c is shared between zones because bus bar 33d is de-energized.

The Final Rejection indicates that the Hasegawa document does not disclose:

"for at least one of the electrically heatable zones (C, D) the conductive path (H) changes direction at least once along its length within the electrically conductive coating layer so as to double back upon itself, (I) and in which at least one bus bar (F, G) is shared between different zones." (Letters added by counsel – see, Final Rejection, page 4, lines 13-16).

This feature may be understood from a review of Appellant's Figure 1, in which bus bars 22 and 23 are each shared between two zones (delineated by slits 6, 9, 10, 11, 12) and in which at least one conductive path (41, 42) doubles back upon itself.

The rejection then proceeds to conclude obviousness to modify the teachings of the Hasegawa document based on the teachings of the Smallbone document (U.S. Patent No. 4,251,316). The rejection identifies two bus bars (4) in the Smallbone document and states that the slits (5) create the boundaries of the zones and that the conductive path changes direction along its length and doubles back upon itself. (See, Final Rejection, page 5, lines 2-end).

However, Appellant submits that there are deficiencies in the logic behind this rejection.

First, the Smallbone document is directed to a heatable rear view mirror for a vehicle which can be de-misted or defrosted. (See, e.g., Smallbone at column 1, lines 8-21). There is no evidence that the technological issues are the same with heating a transparent glass, such as for a windshield, and heating a mirror, (e.g., a glass coated on one side with a backing such as silver) and there is no teaching that the technological issues are the same for a small mirror as distinguished from a large window, and finally, there is no teaching that the technological issues are the same for merely defogging a mirror when compared to defrosting ice, etc., from a windshield.

Second, the Smallbone document indicates only two bus bars (4). If only two bus bars are present, there is only a single zone, albeit a serpentine form in Figures 1 and 5 of the Smallbone document.

Third, having a conductive path which doubles back upon itself is directly contrary to the embodiments of the primary document (Hasegawa) which the Final Rejection proposes to modify. In the Hasegawa document, Figures 11A & B and 12 A & B contemplate a two step procedure, the first step being concentrated defrosting at the distal ends of the slits 34 followed by the second step of defrosting generally across the entire surface of the zone. Appellant submits that it is improper to modify "half" of an embodiment to achieve a rejection. Which "half" or "step" of the embodiment in the Hasegawa document should be ignored to achieve the combination of documents, and why? If the first step is ignored (Figure 11A or 12A) and replaced with the teaching of the Smallbone document, then there is no concentrated defrosting, which is to reject and be contrary to the teaching of this embodiment in the Hasegawa document. If the first step of the Hasegawa document is carried out, there is no reason to replace the second step in the Hasegawa document with the teaching of the Smallbone document – the serpentine

path is not needed once the spot defrosting has been completed since, according to the teachings of the Hasegawa document, the uniform heating provides the desired thawing of the entire surface. (Hasegawa at page 2, lines 41-45, 61-66). Furthermore, since the last clause of Claim 1 under consideration indicates that "...for at least one of the electrically heatable zones, the conductive path ....to double back upon itself...", there is no basis to suggest that in any one of the three zones of Figure 11B (or Figure 12 B) of the Hasegawa document there is any reason to have a serpentine electrical path to replace the unidirectional path disclosed in the Hasegawa document since, according to the teachings of the Hasegawa document, the uniform heating provides the desired thawing of the entire surface. (Hasegawa at page 2, lines 41-45, 61-66).

It is improper to pick and choose features among the various embodiments in Hasegawa and/or from a combination of documents, to support the rejection. Hindsight reconstruction cannot be used "to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." *Ecolochem, Inc. v. Southern California Edison Company,* 56 U.S.P.Q.2D (BNA) 1065 (Fed. Cir. 2000) (quoting *In re Fine,* 5 U.S.P.Q.2D (BNA) 1596 (Fed. Cir. 1988)). Further, the Federal Circuit has cautioned that "is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one skilled in the art." *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve*, 230 U.S.P.Q. (BNA) 416 (Fed. Cir. 1986) (quoting *In re Wesslau*, 147 U.S.P.Q. (BNA) 391, 393 (CCPA 1965).

It is well settled that, when the prior art teaches away from a combination, the combination is more likely to be non-obvious. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. ___, 82

U.S.P.Q.2D (BNA) 1385 (2007).[3] Hasegawa is directed to a conductive glass plate, such as used in window glass of an automobile. In contrast, Smallbone is directed to heated mirrors, such as a rear view mirrors of an automobile. Such automotive mirrors are of relatively small size, compared to windows on an automobile. A person skilled in the art would understand that problem of thermal unevenness is much more critical and difficult to fight in transparent glazings, as in Hasegawa, than in small mirrors like in Smallbone. In addition, Smallbone concerns a reflective, non-transparent coating of a mirror whereas Hasegawa concerns a window with a transparent conductive film coating. Still further, most of the embodiments in the Hasegawa document relate to multiple zones whereas Smallbone only discloses a single zone and thus teaches away from use in multi-zone systems. Indeed, there would be no reason to provide multiple zones in such a small area as an outside mirror for an automobile. Therefore, for at least these reasons, one skilled in the art would not look to the disclosure of Smallbone for combination with Hasegawa, making the proposed combination improper.

There would be no need to modify the teaching of the Hasegawa document, Figure 11B, to have a conductive path double back upon itself in the same zone, and it would be inconsistent with Hasegawa to make the path do so, since the Hasegawa document expressly notes that "current is uniformly supplied to substantially the entire surface of the transparent conductive film 32, as indicated by dotted lines in FIG. 11B." (Hasegawa at page 2, lines 41-43).

Thus, for at least the reasons set forth above, claim 1 is patentable over the cited art and allowable. The rejection should be reversed. As noted above, claims 2-6, 8-9, 12, 14, 18-19 and 21-24 rise or fall with claim 1 insofar as the present rejection is concerned.

[3] Appellant is providing a parallel citation to the United States Patent Quarterly because the full United States Reports citation is not yet available.

2. Claim 30 is patentable.

Claim 30 recites "at least two of said bus bars are shared between different zones." The Final Rejection, at page 4, lines 11-12, states "at least two of the bus bars are shared between different zones as shown in the [Hasegawa] Figure 11A & B".[4] This interpretation of the Hasegawa document is believed to be absolutely incorrect. In Figure 11A, only bus bar 33c is shared between zones – it is shared between the left hand and right hand zones. In Figure 11B, which shows an operational step to be used ***after*** the operational step of Figure 11A, only bus bar 33d is shared between zones (and in this instance the single bus bar is shared among all three zones). Again, Figures 11A and 11B illustrate two operational steps of a single embodiment.

Since the Hasegawa document does not include this feature, and since no other prior art has been cited for this feature, Claim 30 is patentable. Reversal of the rejection is solicited.

C. The rejection of claims 10-11 and 13 under 35 U.S.C. § 103(a) as being unpatentable over U.K. Patent Application Publication No. GB2186769A ("Hasegawa") in view of U.S. Patent No. 4,251,316 ("Smallbone") and further in view of International Application Publication No. WO 00/72635 ("Degand") is improper and should be reversed.

Claims 10, 11 and 13 will be argued as a group based solely on the patentability of independent Claim 1, from which each of these claims depend. Should Claim 1 be deemed not patentable over the combination of the Hasegawa and Smallbone documents, the only documents applied to the rejection of Claim 1, and only for the reasons stated in the Final Rejection, then Claims 10, 11 and 13 would not be not patentable. Reversal of the rejection is requested.

[4] According to the Final Rejection, page 11, third full paragraph, each of Figures 11A, 11B, 12A, 12B, 14 and 15 of the Hasegawa document are said to disclose multiple zones. However, only Figures 11A and 11B illustrate a bus bar shared between zones. (The zones are separated by slits 34.)

D. The rejection of claims 15 and 16 under 35 U.S.C. § 103(a) as being unpatentable over U.K. Patent Application Publication No. GB2186769A ("Hasegawa") in view of U.S. Patent No. 4,251,316 ("Smallbone") and further in view of U.S. Patent No. 5,466,911 ("Spagnoli") is improper and should be reversed.

Claims 15 and 16 will be argued as a group based solely on the patentability of independent Claim 1, from which these claims ultimately depend. Should Claim 1 be deemed not patentable over the combination of the Hasegawa and Smallbone documents, the only documents applied to the rejection of Claim 1, and only for the reasons stated in the Final Rejection, then Claims 15 and 16 would not be patentable. The rejection should be reversed.

E. The rejection of claim 17 under 35 U.S.C. § 103(a) as being unpatentable over U.K. Patent Application Publication No. GB2186769A ("Hasegawa") in view of U.S. Patent No. 4,251,316 ("Smallbone") and further in view of U.S. Patent No. 5,466,911 ("Spagnoli"), U.S. Patent No. 3,475,588 ("McMaster") and U.S. Patent No. 4,119,425 ("Marriot") is improper and should be reversed.

Claim 17 depends from Claim 1 and is argued based solely on the patentability of independent Claim 1. Should Claim 1 be deemed not patentable over the combination of the Hasegawa and Smallbone documents, the only documents applied to the rejection of Claim 1, and only for the reasons stated in the Final Rejection, then Claim 17 would not be patentable. Reversal of the rejection is solicited.

F. The rejection of claim 20 under 35 U.S.C. § 103(a) as being unpatentable over U.K. Patent Application Publication No. GB2186769A ("Hasegawa") in view of U.S. Patent No. 4,251,316 ("Smallbone") and further in view of and further in view of International Application Publication No. WO 00/72635 ("Degand") is improper and should be reversed.

Claim 20 depends from Claim 1 and is argued based solely on the patentability of independent Claim 1. Should Claim 1 be deemed not patentable over the combination of the Hasegawa and Smallbone documents, the only documents applied to the rejection of Claim 1,

and only for the reasons stated in the Final Rejection, then Claim 20 would not be patentable. The rejection should be reversed.

G. The rejection of claims 25-29 as being unpatentable under 35 U.S.C. § 103(a) over U.K. Patent Application Publication No. GB 2186769A ("Hasegawa")is improper and should be reversed.

Claims 25-29 depend from Claim 21 which depends from Claim 1, the sole independent claim. Claim 1 and Claim 21 were each rejected based on the combination of the Hasegawa and Smallbone documents. (See, Final Rejection, page 3, ¶ 4).

According to the Final Rejection, the Hasegawa document did not disclose all the features of Claim 1 (and therefore could not have disclosed all the features of Claim 21 which depends from Claim 1) and the Final Rejection considered it necessary to consider the Smallbone document in combination with the Hasegawa document. It is inconsistent, and therefore improper, to reject dependent claims [25-29] on a single reference where the Final Rejection conceded that the single reference did not disclose all the features of the independent claim [1] from which those claims depend -- a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers. 35 U.S.C. 112, ¶4.

Therefore, as a matter of law, the rejection of Claims 25-29 solely on the basis of the Hasegawa document is improper and should be reversed, even if, the rejection of Claim 1 is sustained. To do otherwise would interject a different basis for rejection without giving Appellant the appropriate opportunity to respond during *ex parte* prosecution.

Accordingly, on this procedural basis, the Final Rejection of Claims 25-29 is improper and should be reversed.[5]

VIII. CONCLUSION

For at least the reasons set forth above, appealed claims 1-6 and 8-30 define patentable subject matter over the prior art of record and are thus allowable. Appellant respectfully requests reversal of the rejections and a remand to the Examiner consistent with such reversal.

Respectfully submitted,

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[5] It is noted that this could not have been argued previously by Appellant since the Final Rejection was a first action Final Rejection after an RCE had been filed and, in addition, the objection to the drawings was raised for the first time in this first action Final Rejection after the filing of an RCE.

IX. CLAIMS APPENDIX

1. An electrically heatable glazing panel comprising a substrate and at least two electrically heatable zones, each electrically heatable zone comprising:

i) a substantially transparent, electrically conductive coating layer,

ii) spaced bus bars adapted to supply electrical voltage across the substantially transparent, electrically conductive coating layer, and

iii) a conductive path defined between the bus bars,

at least two electrically heatable zones being delimited by at least one zone boundary which is substantially insulating;

in which, for at least one of the electrically heatable zones the conductive path changes direction at least once along its length within the electrically conductive coating layer so as to double back upon itself, and in which at least one bus bar is shared between different zones.

2. An electrically heatable glazing panel according to Claim 1 in which at least one portion of the conductive path extends substantially from a lower edge of the glazing panel to an upper edge of the glazing panel.

3. An electrically heatable glazing panel according Claim 1 in which, for at least two electrically heatable zones, the conductive path changes direction at least once along its length within the electrically conductive coating layer so as to double back upon itself.

4. An electrically heatable glazing panel according to Claim 3 in which the length of the conductive path is substantially the same in each zone.

5. An electrically heatable glazing panel according to Claim 1 in which all of the bus bars are located along the length of a same edge of the glazing panel.

6. An electrically heatable glazing panel according to Claim 5 in which the bus bars are provided along the length of the lower edge of the glazing panel.

7. (Canceled)

8. An electrically heatable glazing panel according to Claim 1 in which the one or more zone boundaries are provided by non-coated portions of the glazing panel.

9. An electrically heatable glazing panel according to Claim 1 in which the one or more zone boundaries have a width of less than 150 μm.

10. An electrically heatable glazing panel according to Claim 1 in which the coating layer is a solar control coating layer.

11. An electrically heatable glazing panel according to Claim 1 in which the coating layer has a resistance comprised between 2 and 25 to ohms/square.

12. An electrically heatable glazing panel according to Claim 1 in which the substrate is a glass sheet.

13. An electrically heatable glazing panel according to Claim 1 in which the glazing panel is thermally toughened.

14. An electrically heatable glazing panel according to Claim 1 in which the glazing panel is laminated.

15. An electrically heatable glazing panel according to Claim 1 in which the glazing panel is an automotive side window.

16. An electrically heatable glazing panel according to Claim 1 in which the glazing panel has at least one acute angle.

17. An electrically heatable glazing panel according to Claim 16 in which the glazing panel is of substantially triangular shape.

18. An electrically heatable glazing panel according to Claim 1 in which the electrically conductive coated layer is deposited directly on a surface of the substrate.

19. An electrically heatable glazing panel according to Claim 1 in which the electrically conductive coated layer is carried by a thin plastic film assembled as part of the glazing panel.

20. An electrically heatable glazing panel according to Claim 1 in which the variation in temperature across all electrically heatable zones is less than 15°C when a voltage is applied across the coating layer of the glazing panel via the spaced bus bars and after the glazing panel has reached equilibrium conditions with its surroundings, the surroundings being at room temperature.

21. An electrically heatable glazing panel according to Claim 1, comprising

spaced first, second and third electrical bus bars arranged in order at and along an edge of the glazing panel

a first electrically heatable pathway defined between the first and the second bus bars

a second electrically heatable pathway defined between the second and the third bus bars.

22. An electrically heatable glazing panel in accordance with Claim 21, which is adapted to provide for electrical heating of the first electrically heatable pathway by means of a difference in electrical potential applied between the second and first bus bars and which is adapted to provide for electrical heating of the second electrically heatable pathway by means of a difference in electrical potential applied between the second and third bus bars.

23. An electrically heatable glazing panel in accordance with Claim 21 in which the first and third bus bars are adapted to be maintained at substantially the same electrical potential for heating of the first and second electrically heatable pathways.

24. An electrically heatable glazing panel in accordance with Claim 21, in which, for heating of the first and second electrically heatable pathways, the second bus bar is adapted to be maintained at a negative electrical potential and the first and the third bus bars are adapted to be maintained at a positive electrical potential.

25. An electrically heatable glazing panel in accordance with Claim 21, in which the glazing panel further comprises

a fourth electrical bus bar spaced from and arranged in order with the first, second and third electrical bus bars at and along an edge of the glazing panel

a third electrically heatable pathway defined between the third and the fourth bus bars.

26. An electrically heatable glazing panel in accordance with Claim 25, further comprising

a fifth electrical bus bar spaced from and arranged in order with the first, second, third and fourth electrical bus bars at and along an edge of the glazing panel a fourth electrically heatable pathway defined between the fourth and the fifth bus bars.

27. An electrically heatable glazing panel in accordance with Claim 21, in which the electrically heatable pathways are provided by portions of an electrically heatable coating layer provided as part of the glazing panel.

28. An electrically heatable glazing panel in accordance with Claim 21, in which the electrically heatable pathways are provided by electrically heatable wires.

29. An electrically heatable glazing panel in accordance with Claim 21, in which the bus bars are substantially parallel and/or substantially co-linear and/or substantially co-axial.

30. An electrically heatable glazing panel according to Claim 1 in which at least two of said bus bars are shared between different zones.

X. EVIDENCE APPENDIX

None

XI. RELATED PROCEEDINGS APPENDIX

None